

AGRICULTURAL ENGINEERING



an engineering odyssey

College of Engineering

University of Illinois

at Urbana-Champaign

Friday, March 14 8:00 A.M.—8:00 P.M.

Saturday, March 15 8:00 A.M.—3:00 P.M.

engineering open house

THE COVER

This year's theme, "2001-an Engineering Odyssey," was chosen to denote the futuristic advances made by the engineering profession. A highlight of this year's open house will be the dedication of a large monolith, symbolizing the progress man has made in his battle for survival. The monolith is located between the Electrical Engineering Building and Engineering Hall, directly opposite the Tau Beta Pi courtyard, in conjunction with the theme, a time capsule was buried adjacent to the monument. The time capsule contains one article from each Engineering department that is characteristic of current research being done in that department. The time capsule will lie undisturbed until the year 2001, when it will be unearthed and its contents put on public display.

Agricultural Engineering
The Profession with America's Future

1975 ENGINEERING OPEN HOUSE
March 14 and 15, 1975

Welcome to Agricultural Engineering Open House. The Department of Agricultural Engineering bridges the gap between two great disciplines, engineering and agriculture. The program is actually a part of the College of Engineering, but the cooperation and interaction between the Agricultural Engineers and the College of Agriculture are always evident.

The Agricultural Engineering curriculum offers a student a choice of interests. The curriculum has four areas of specialization.

Many students choose to major in Power and Machinery. After these students graduate, they may be engaged in farm tractor and machinery development, design, plant engineering, or consulting.

The Soil and Water area provides excellent opportunities for many young engineers. An increasing awareness of the necessity for the planned use of our water and soil resources on every level of activity--county through international--has set new standards for the engineers who must cope with problems of water shortage, flood control, and optimization of agronomic production through more efficient drainage, irrigation, and erosion control practices.

The Processing graduate may be involved with any sort of problem in grain or materials handling, drying, or storage. The processing graduate has knowledge of electronics and psychrometry and may work in many areas of industry.

The Structures and Environment graduate has experience in design principles, farm buildings, strength of materials, foundation engineering, concrete design, and new innovations in waste management. The area of waste management is a very good area for a structures graduate to do his service to society and agriculture.

The interdisciplinary background of the agricultural engineer serves him well in dealing with problems, each of which involves a multiplicity of public interests. For men capable of applying new concepts of hydrology, hydraulics, construction, and machinery design, the opportunities are great.

Thank you for touring the Agricultural Engineering Department. Please feel free to ask questions. If you would like more information about Agricultural Engineering, please write to Dr. Frank B. Lanham, Head, Agricultural Engineering Department, University of Illinois, Urbana, Illinois 61801.

Visit us again.

We enjoyed being your host.

1975 EXHIBITS

Power and Machinery

1. Predicting Traction Using Artificial Soils
2. Current Production Air Planter Units
3. Non-Symmetrical Fan Studies
4. The Grain Header of 2001
5. Analog Computer Simulation
6. "Ice Cream Scoop" Backhoe Ejection System
7. Dynamometer Demonstration
8. Spray Characteristics of a Bypass Nozzle
9. New Equipment for Soybean Harvesting
10. Surface Roughness Measurement
11. Prediction of Tire Traction Using the Soil Cone Index
12. A Study of Muffler Shell Vibration

Structures and Environment

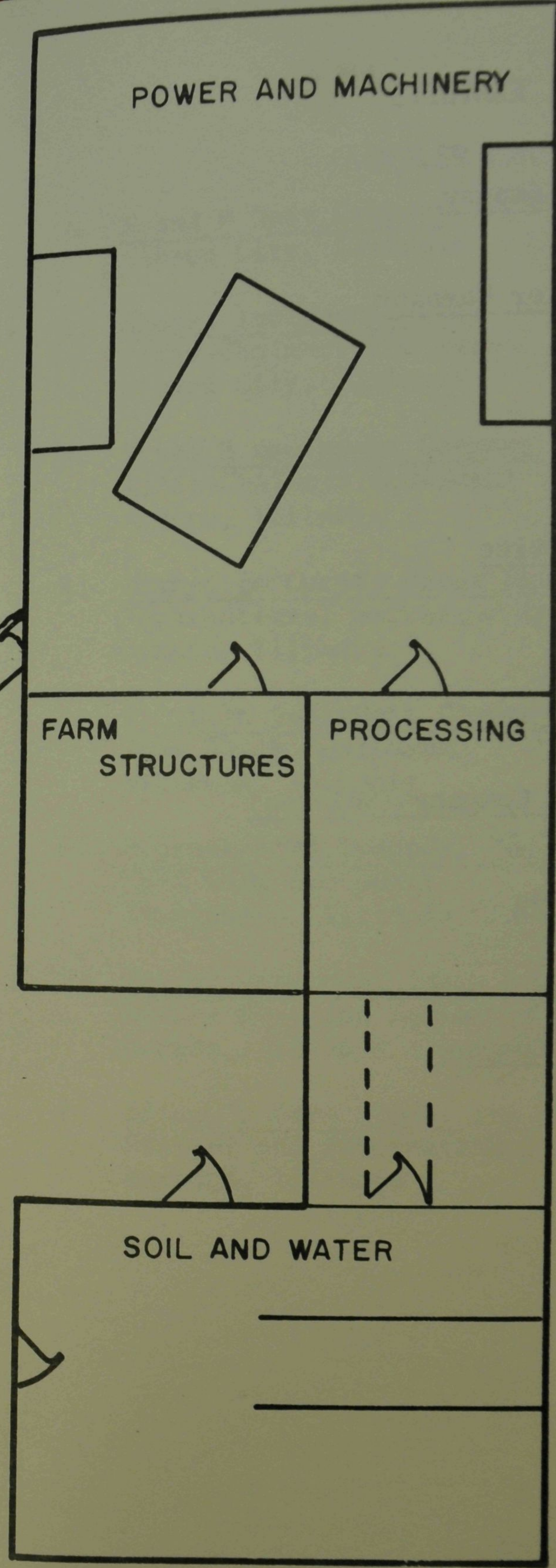
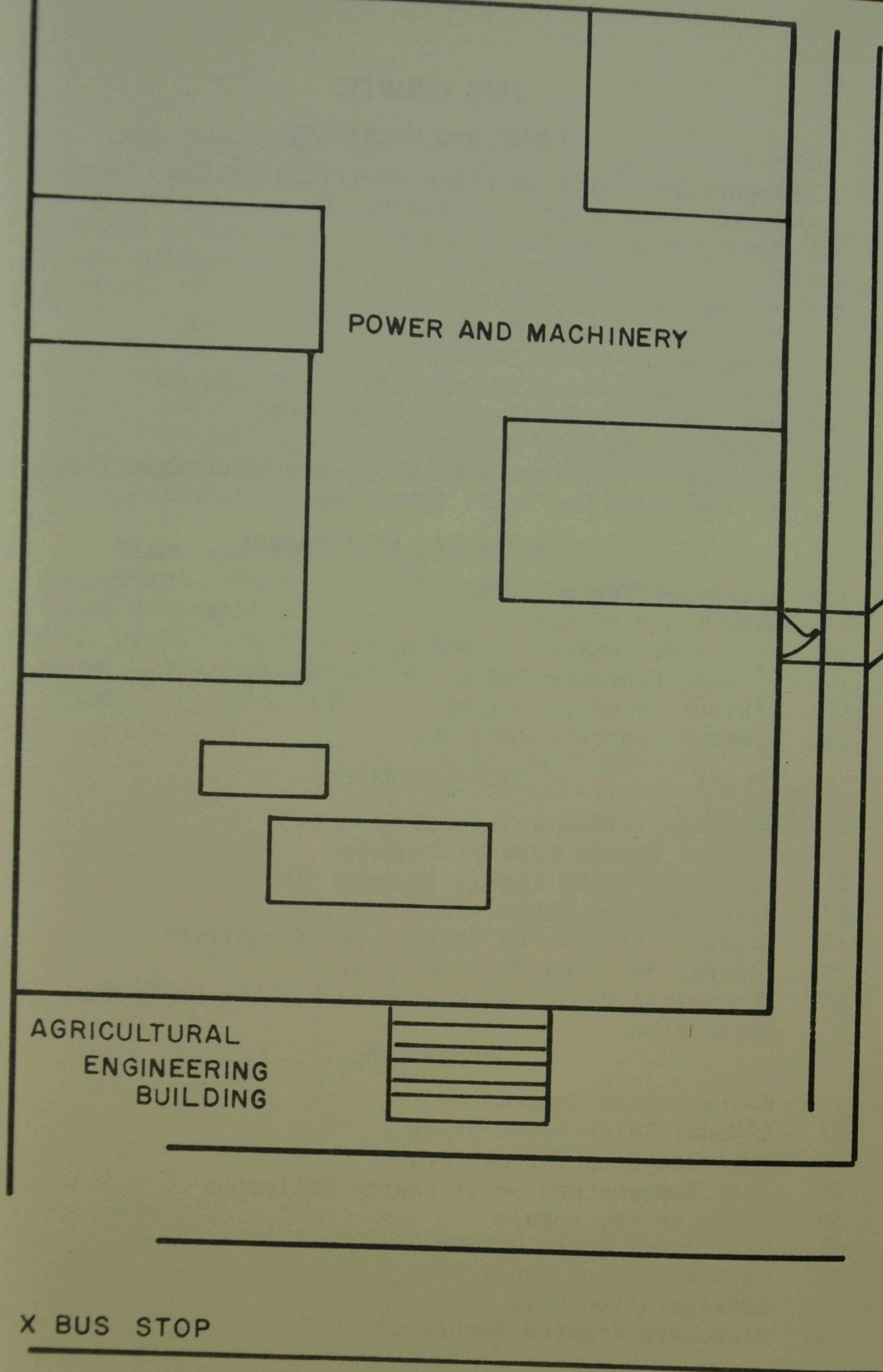
13. Energy-Efficient Farm
14. Wind Storm Simulator
15. Hail Storm Damage to Siding
16. Fibrous Concrete Tests
17. Fibrous Concrete Mixing
18. Fibrous Concrete Products

Soil and Water

19. Southern Illinois Nitrate Studies
20. Feedlot Runoff Control Studies
21. Livestock Waste Lagoon Seepage Study
22. Desk Computer Games--Wang Computer
23. Moisture Effects on Tillage Trafficability
24. General Soil and Water Display
25. Mechanical Mouse for Measuring Plastic Drain Tile Deflection

Processing

26. Radiant Heat Controller
27. A Model Solar Grain Dryer
28. Pressure Drop Through Grain
29. High Temperature Solar Energy Collector
30. Foods of the Future
31. Silica Gel Grain Drying
32. Soybean-Banana Candy Bar
33. Refrigeration Unit
34. Microwave Roasted Soybeans



AGRICULTURAL
ENGINEERING
TOURS

AG. ENGR. RESEARCH LAB.

INDUSTRIAL EXHIBITS

Power and Machinery

1. Caterpillar Tractor Company
Peoria, Illinois
2. International Harvester Company
Chicago, Illinois
3. John Deere Company
East Moline, Illinois

Soil and Water

4. Soil Conservation Service
Champaign, Illinois

Processing

5. Air-Vey, Inc.
Lincoln, Illinois
6. Solar Energy Products Company (Soloron)
Avon Lake, Ohio
7. Dickey-John Corporation
Auburn, Illinois

Structures and Environment

8. Chore Time Equipment Company
Milford, Indiana

DEALER EXHIBITS

1. M and W Gear Company
Gibson City, Illinois
2. Shaner Implement, Inc.
Allis-Chalmers Equipment
Gibson City, Illinois
3. H and H Equipment Company
Allis-Chalmers Equipment
Sidney, Illinois
4. Champaign County Power Equipment Company
International Harvester Equipment
Urbana, Illinois
5. Allerton Implement Company
John Deere Equipment
Allerton, Illinois
6. Plotner Ford Tractor, Inc.
Ford Farm Equipment
Thomasboro, Illinois
7. Massey Ferguson, Inc., Farm Center
Massey Ferguson Equipment
Urbana, Illinois
8. Birkey's Farm Store, Inc.
Steiger and International Equipment
Rantoul, Illinois

DEPARTMENT CHAIRMEN

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Mark Taute

Tony Thoele

Structures and Environment Division

Kevin Lowe

Mike Krause

Soil and Water Division

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